

ABSTRACT

A field effect device includes at least one segmented field plate, each of the at least  
5 one segmented field plates having a plurality of segments that each form a plate of a  
capacitor, wherein the field effect device is connected to an electronic element that  
dynamically connects selected segments to selectively set a gate-to-drain and a drain-to-  
source capacitance. An ultrasonic device includes a transducer coupled to a switching  
device that switches the transducer between a transmit mode and a receive mode switching  
10 device, wherein the switching device includes the field effect device.